

Title (en)

Tap hole drilling machine for shaft furnaces.

Title (de)

Stichlochbohrmaschine für Schachtöfen.

Title (fr)

Machine de perçage d'un trou de coulée de four à cuve.

Publication

EP 0128432 A2 19841219 (FR)

Application

EP 84105974 A 19840525

Priority

LU 84855 A 19830608

Abstract (en)

[origin: US4602770A] A taphole drilling device for shaft furnaces is presented which is controlled by hydraulic fluid means. The taphole drilling device is particularly suitable for use in conjunction with a drilling process wherein the opening and closing of the taphole comprises the positioning and extraction of a drill rod which is left inside the taphole between successive tappings. One embodiment of the present invention essentially comprises a bar, a uni-directional percussion instrument which slides along the bar under the action of a motor, a device for coupling the drill rod to the percussion instrument and a means provided at the front end of the bar for guiding and supporting the drill rod. It will be appreciated that the motor used to drive the percussion instrument is preferably a hydraulic motor. In a second embodiment, a hydraulic jack is used to initially disengage the drill rod from the taphole and thereafter the drill rod is extracted under the action of a uni-directional percussion instrument powered by a pneumatic or hydraulic motor.

Abstract (fr)

La machine est conçue pour la mise en oeuvre d'un procédé selon lequel la fermeture et l'ouverture du trou de coulée comportent respectivement une opération de mise en place et une opération d'extraction d'une tige de perçage, qui est abandonnée dans la masse du trou de coulée entre deux coulées successives. Elle comporte un affût (18) monté à l'extrémité libre d'un bras porteur (20), un instrument de percussion (22) coulissant le long dudit affût (18) sous l'action d'un moteur, un moteur hydraulique suffisamment puissant pour extraire la tige de perçage (12) sans l'assistance de l'instrument de percussion (22) et un moyen permettant à l'affût (18) de prendre appui sur la paroi (10) du four lors de l'extraction sous l'action dudit moteur.

IPC 1-7

C21B 7/12

IPC 8 full level

C21B 7/12 (2006.01)

CPC (source: EP US)

C21B 7/12 (2013.01 - EP US)

Cited by

DE3825100A1; FR2619036A1; FR2621264A1; BE1004162A3; CN114606353A; FR2687689A1; BE1006264A3; US5338013A; EP0552476A3; DE3941405A1; EP0379018A3; US5192489A; DE3941405C2; WO2010094571A1

Designated contracting state (EPC)

AT BE DE FR GB IT

DOCDB simple family (publication)

EP 0128432 A2 19841219; EP 0128432 A3 19861112; EP 0128432 B1 19890712; AT E44548 T1 19890715; AU 2917884 A 19841213; AU 565504 B2 19870917; CA 1217760 A 19870210; DE 3478937 D1 19890817; LU 84855 A1 19850329; US 4602770 A 19860729; ZA 844085 B 19850327

DOCDB simple family (application)

EP 84105974 A 19840525; AT 84105974 T 19840525; AU 2917884 A 19840607; CA 456053 A 19840607; DE 3478937 T 19840525; LU 84855 A 19830608; US 61857184 A 19840608; ZA 844085 A 19840529